



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H04K 1/00		A1	(11) International Publication Number: WO 00/45539
			(43) International Publication Date: 3 August 2000 (03.08.00)
(21) International Application Number: PCT/US00/02174		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 28 January 2000 (28.01.00)			
(30) Priority Data: 60/117,788 29 January 1999 (29.01.99) US 60/128,772 9 April 1999 (09.04.99) US			
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(54) Title: KEY MANAGEMENT FOR TELEPHONE CALLS TO PROTECT SIGNALING AND CALL PACKETS BETWEEN CTA'S

(57) Abstract

A system for establishing a secure communication channel between a first user (102) and a second user (112) in an IP telephony network. The first user and the second user are coupled to first (104) and second (114) telephony adapters, which in turn, are coupled to first (106) and second (116) gateway controllers, respectively, wherein the gateway controllers control user access to the IP telephony network. The telephony adapters are used to encrypt and decrypt user information exchanged over the IP telephony network. The system includes a method which begins when a request is received at the first gateway controller to establish a secure communication channel between the first user and the second user.

Next, a secret key (408) is generated at the first gateway controller. A copy of the secret key is distributed to the first and second telephony adapters over previously established secure connections. Finally, the secure communication channel is established (422) between the first user and the second user by encrypting and decrypting information using the secret key.

